

Appl. No. 10/002,781
Amdt. Dated February 27, 2006
Reply to Office Action of November 28, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

30 **Listing of Claims:**

1. (currently amended) A method for interleaving print jobs comprising:

receiving a plurality of original print jobs at a non-printer computing device;

- 35 breaking down at least one of said original print jobs into a plurality of smaller sub-jobs with said non-printer computing device;

tagging said plurality of smaller sub-jobs with an output mode code wherein said output mode code is the same for all said smaller sub-jobs originating from the same original print job;

- 40 interleaving said smaller sub-jobs and any remaining original print jobs in an alternating sequence of print jobs with said non-printer computing device; and

sending said alternating sequence of print jobs sub-jobs to a printer in said sequence.

- 45 2. (previously amended) The method of claim 1 wherein said non-printer computing device is a client computing device.
3. (previously amended) The method of claim 1 wherein said non-printer computing device is a network print server.
4. (cancelled)

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- 50 5. (previously amended) The method of claim 1 wherein said breaking
 down is performed by a software print system component in an
 operating system print server.
6. (cancelled)
- 55 7. (previously amended) The method of claim 5 wherein said print
 system component is independent of an operating system print driver.
8. (previously amended) The method of claim 5 wherein said print
 system component is a network print spooler that is independent of a
 printer.
- 60 9. (previously amended) The method of claim 5 wherein said print
 system component is a network print driver.
10. (original) The method of claim 1 wherein said breaking down results
 in sub-jobs of approximately equal size.
11. (original) The method of claim 1 wherein said breaking down results
 in sub-jobs of approximately equal printing time.
- 65 12. (original) The method of claim 1 wherein said alternating sequence
 places sub-jobs originating from smaller original print jobs toward the
 front of the print order.
13. (currently amended) A method for interleaving print jobs, said
 method comprising:
- 70 receiving a plurality of original print jobs at a non-printer, print
 system component before said jobs arrive at a printer;
- breaking down at least one of said original print jobs into a
 plurality of smaller sub-jobs with said print system component;

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75 tagging said plurality of smaller sub-jobs with an output mode
code wherein said output mode code is the same for all said smaller
sub-jobs originating from the same original print job;

 interleaving said smaller sub-jobs and any remaining original
print jobs in an alternating sequence of print jobs with said print
system component; and

80 sending said alternating sequence of print jobs ~~sub-jobs~~ to a
printer in said sequence.

14. (currently amended) A method for reducing delay of smaller print
jobs in a print queue, said method comprising:

85 receiving a plurality of original print jobs at a print system
component before said print jobs arrive at a printer, said plurality of
original print jobs comprising at least one larger print job and at least
one smaller print job;

 breaking down said larger original print job into smaller sub-
jobs;

90 tagging said smaller sub-jobs with an output mode code;

 interleaving said sub-jobs with said smaller original print job in
an alternating sequence; and

 sending said sub-jobs and said smaller original print job to a
printer in said sequence.

95 15. (original) The method of claim 14 further comprising breaking down
said smaller original print job into smaller sub-jobs and wherein said
interleaving comprises interleaving said smaller sub-jobs from said
larger print job with said smaller sub-jobs from said smaller print job.

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- 100 16. (currently amended) A system for interleaving print jobs before said
print jobs arrive at a printer, said system comprising:
- a receiver for receiving a plurality of original print jobs, before said print
jobs arrive at a printer;
- a partitioner for breaking down at least one of said original print jobs into
a plurality of smaller sub-jobs;
- 105 a tagger for tagging said plurality of smaller sub-jobs with an output mode
code wherein said output mode code is the same for all said smaller
sub-jobs originating from the same original print job;
- an interleaver for interleaving said smaller sub-jobs and any remaining
original print jobs in an alternating sequence of print jobs; and
- 110 a sender for sending said alternating sequence of print jobs sub-jobs to a
printer.
17. (currently amended) A computer readable medium comprising
instructions for performing functions within a non-printer, print system
component, said instructions comprising the acts of:
- 115 receiving a plurality of original print jobs at a print system
component before said print jobs arrive at a printer;
- breaking down at least one of said original print jobs into a
plurality of smaller sub-jobs;
- 120 tagging said plurality of smaller sub-jobs with an output mode
code wherein said output mode code is the same for all said smaller
sub-jobs originating from the same original print job;
- interleaving said smaller sub-jobs with any remaining original
print jobs in an alternating sequence of print jobs; and

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125 sending said alternating sequence of print jobs sub-jobs to a
printer in said sequence.

18. (currently amended) A computer data signal embodied in an
electronic transmission, said signal having the function of interleaving
print jobs, said signal comprising instructions for a non-printer, print
system component to perform the acts of:

130 receiving a plurality of original print jobs at a print system
component before said print jobs arrive at a printer;

 breaking down at least one of said original print jobs into a
plurality of smaller sub-jobs;

135 tagging said plurality of smaller sub-jobs with an output mode
code wherein said output mode code is the same for all said smaller
sub-jobs originating from the same original print job;

 interleaving said smaller sub-jobs and any remaining original
print jobs in an alternating sequence of print jobs; and

140 sending said alternating sequence of print jobs sub-jobs to a
printer in said sequence.